

Notice of Allowability

Application No.

09/825,246

Examiner

Joyce Tung

Applicant(s)

SINGH ET AL.

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/9/04.
2. ☒ The allowed claim(s) is/are claims 16-17, 19-29 (final claims 1-13).
3. ☒ The drawings filed on 02 April 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

The applicant's response filed 6/9/2004 to the Office action has been entered. Claims 16-17 and 19-29 are pending.

1. The following is an examiner's statement of reasons for allowance:

Concerning claims 16-17, and 19-24, no prior art has been found teaching or suggesting the set of electrophoretic probe for detecting the presence or absence of one or more of a plurality nucleotide sequences in a sample comprising a plurality of electrophoretic probes selected from the group defined as (D,M)-N-T in which (D,M)-N is an e-tag having charge, D is a detection moiety, M is mobility modifier consisting of from 1 to 500 atoms and T is oligonucleotide specific for at least one of the plurality of nucleotide sequences in which at least one nucleotide of T has a capture ligand attached. The capture ligand binds to a capture agent that has a charge opposite to that of e-tag reporters so that undigested electrophoretic probes are excluded from the electropherogram.

Concerning claims 25-29, no prior art has been found teaching or suggesting the set of electrophoretic probe for detecting the presence or absence of one or more of a plurality nucleotide sequences in a sample comprising the same elements as the probes cited in claims 16-17 and 19-24 except that M, mobility modifier has a molecular weight of between 35 and 1500 Daltons.

The closest prior art is the reference of Grossman et al. (5,470,705) in view of Kline et al. (5459078). Grossman et al. disclose a method of detecting a plurality of different sequences in a target sequences in which a plurality of sequence probes is used. The probes of Grossman et al. have the features of e-Tag of the instant invention. However, the probes of Grossman et al. are

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not electrophoretic probe attached with a capture ligand. Kline et al. teach a specific binding pair which captures nucleic acid sequence. However, the charged capture reagent of Kline et al. with an oppositely charged solid support is to remove binding compound-analyte complexes from reaction mixture for detection. The charged capture reagent used in the instant invention is to remove unreacted electrophoretic probes for excluding from the electropherogram.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is 571 272-0790. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571 272 0782. The fax phone number for the organization where this application or proceeding is assigned is 571 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Joyce Tung

February 8, 2005

Kenneth R. Horlick
KENNETH R. HORLICK, PH.D
PRIMARY EXAMINER

3/1/05